

LISTING OF CLAIMS

Claim 1

currently amended

Claims 2-6

canceled

Claim 7

currently amended

Claims 8 to 12

canceled

Application control number 10/020,638



TEXT OF CLAIMS CURRENTLY UNDER EXAMINATION

(currently amended) A silicon wafer having a B-stageable underfill material deposited on one face of the wafer, the B-stageable underfill comprising a combination of two chemical compositions,

a first composition, selected from the group consisting of acrylic compounds; cycloaliphatic epoxy compounds; bismaleimide compounds; and bismaleimide compounds in combination with vinyl ether, vinyl silane, styrenic or cinnamyl compounds; which has been cured at a temperature within the range of 100°C to 150°C, that is a liquid, or a solid dissolved or dispersed in a solvent, and

a second composition that is an uncured epoxy compound and a complex of 1 part 1,2,4,5-benzenetetracarboxylic anhydride and 4 parts 2-phenyl-4-methylimidazole, or an uncured epoxy compound and a complex of 1 part 1,2,4,5-benzenetetracarboxylic dianhydride and 2 parts 2-phenyl-4-methylimidazole, a-solid-or-semi-solid-material at room temperature, dispersible or dissolvable-either in the first composition if the first composition is a liquid, or in the solvent for the first composition is a solid dissolved or dispersed in a solvent,

the second composition having a curing temperature or curing temperature range higher than the curing temperature or curing temperature range of the first composition,

the curing temperatures or curing temperature ranges sufficiently separated to allow the first composition to cure without curing the second composition;

characterized in that the first composition has been cured at a temperature within-the range of 100°C to 150°C, and the second composition is uncured

the first composition, before cure, being a liquid, or a solid dissolved or dispersed in a solvent;

the second composition, before and after cure of the first composition, being a solid or semi-solid material at room temperature, dispersible or dissolvable either in the first composition if the first composition before cure was a liquid, or in the solvent for the first

composition if the first composition before cure was a solid dissolved or dispersed in a solvent;

the curing temperatures of the first and second compositions being separated by at least 30°C to allow the first composition to cure without curing the second composition.

7. (currently amended) A B-stageable underfill composition comprising a combination of two chemical compositions,

a first composition that is a liquid, or a solid dissolved or dispersed in a solvent, curable at a temperature within the range of 100°C to 150°C, and that is selected from the group consisting of acrylic compounds; cycloaliphatic epoxy compounds; bismaleimide compounds; and bismaleimide compounds in combination with vinyl ether, vinyl silane, styrenic or cinnamyl compounds; and

a second composition that is a solid or semi-solid material at room temperature, dispersible or dissolvable either in the first composition if the first composition is a liquid, or in the solvent for the first composition if the first composition is a solid dissolved or dispersed in a solvent, and that is an epoxy compound and a complex of 1 part 1,2,4,5-benzenetetracarboxylic anhydride and 4 parts 2-phenyl-4-methylimidazole, or an epoxy compound and a complex of 1 part 1,2,4,5-benzenetetracarboxylic dianhydride and 2 parts 2-phenyl-4-methylimidazole,

the second composition having a curing temperature or curing temperature range higher than the curing temperature or curing temperature range of the first composition,

the curing temperatures or curing temperature ranges sufficiently separated to allow the first composition to cure without curing the second composition

characterized in that the first composition is curable at a temperature within the range of 100°C to 150°C.